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EXAMINER

CERULLO, LILIANA P

ART UNIT

PAPER NUMBER

2629

NOTIFICATION DATE

DELIVERY MODE

11/01/2010

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary

Application No.

10/566,186

Applicant(s)

ERFORT ET AL.

Examiner

LILIANA CERULLO

Art Unit

2629

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 September 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 14-26 and 28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 14-26 and 28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/GS/US)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

In an amendment dated, 9/28/2010, the Applicant amended claim 14. Currently claims 14-26 and 28 are pending.

Claim Rejections - 35 USC § 112

1. Claim 14 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 14 recites the limitation "the playing time of the sequences" in line 12 and "the average time it takes the viewer to travel between locationss" in line 13. There is insufficient antecedent basis for these limitations in the claim as this is the first time the underlined terms are used. Please note that while the specification (dated 1/26/2006, pg. 11-12) provides support for a first sequence and a second sequence and their playing time, and the average time of travel; it is unclear from the claim language what display elements are part of the sequences or what sequences play in the first or second display device. Furthermore, when referring to the "difference in time between the playing times of the sequences" in claim 14, it is unclear if this would mean the start time of the sequence or coordination between elements, for example when a first sequence plays element B and when the second sequence plays the same element B. The examiner kindly suggests clearly defining "the sequences", "locations" and "playing time" in the claim and what is meant by the playing time as supported by the specification and Fig. 1. The examiner also kindly suggests requesting an interview prior to submission of any proposed amendments.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. **Claims 14-26 and 28** are rejected under 35 U.S.C. 103(a) as being unpatentable over Muoio et al. in US 6,670,934 (hereinafter Muoio) in view of Takahashi in US 6,384,801.

4. Regarding **claim 14**, Muoio discloses a method (*col. 3 lines 36-37*) for the visualization of digital display elements (*art images to be displayed as shown in Fig. 1 per col. 4 lines 42-44*) on a plurality of display devices (*Fig. 6, displays 605 per col. 6 lines 14-17*), wherein the visualization of display elements (*images of Fig. 1 and col. 6 lines 22-25*) on a first display device (*display device on a space of the house, e.g. bedroom space child1 of Fig. 4 and col. 5 lines 34-50 and col. 3 lines 48-52*) and the visualization of display elements (*images of Fig. 1 and col. 6 lines 22-25*) on at least one additional display device (*display device on a space of the house, e.g. master bedroom of Fig. 4 and col. 5 lines 34-50 and col. 3 lines 48-52*) takes place in a chronologically (*as required for displaying different art images in sequence per a playlist as shown in Fig. 3 and col. 5 lines 5-9, col. 1 lines 45-50*) and spatially coordinated manner (*Fig. 4 and col. 5 lines 29-50 where the art images arranged in a playlist are assigned to different spaces in a house*), wherein said at least one additional display device is

visually coordinated with said first display device (*Fig. 4 and col. 5 lines 29-50 where for example the bedrooms space, including master and child1, are displaying art play list 10, thus they are visually coordinated*), characterized in that:

providing a plurality of display computer devices (*art space controllers 603 of Fig. 6 and col. 6 lines 14-17*), and a control computer device (*art server controller 707 of Fig. 7 which is part of art server 601 of Fig. 6 and col. 6 lines 14-17*) connected to said display computer devices (*as shown in Fig. 6*) wherein each display computer device (*art space controllers 603 of Fig. 6*) is associated with a minimum of one display device (*display 605 of Fig. 6 and col. 6 lines 14-17*), and the display devices (*display 605 of Fig. 6*) are arranged in a freely configurable order with respect to location (*there is no requirement for the location of the displays or rooms of col. 5 lines 34-50*) but chronologically coordinated in timing with respect to each other (*per the hierarchy and play lists of col. 5 lines 30-50 and Fig. 4. Note that playlist 10 is currently being played in the master bedroom and child1 room, thus the master bedroom and the child1 room are chronologically coordinated in timing, because they are currently playing the same playlist*);

transmitting a minimum of one display element (*images of Fig. 1 and col. 6 lines 45-46 referring to the image database 703 in Fig. 7*) in a file format (*as required for having an electronic copy of col. 4 lines 27-30*) and a minimum of one control information (*as required to identify the image to be displayed and the display interval per col. 6 lines 40-45*) to the control computer device (*art server controller 707 of Fig. 7 per col. 6 lines 58-63*) in a sequence plan (*playlist of Fig. 4*);

said control information specifying the point in time and the location of the display of the display elements on a display device (*display interval of col. 6 lines 40-45 and identification of playlist assigned to a space of col. 6 lines 46-49*);

said control computer device (*art server controller 707 of Fig. 7*) analyzing said sequence plan (*col. 6 lines 58-63 where the art servers controller controls the operation of the server including play list changes*) and generating a minimum of one control command from the control information (*as required for communication between the server 601 and the displays in Fig. 6. This control command is generated upon running the functions that check for changes in the playlist per col. 8 lines 43 to col. 9 line 7, e.g. updated image identifier along with the playlist control information of col. 6 lines 40-49*);

said control computer device (*art server controller 707 of Fig. 7*) transmitting the display element (*art images to be displayed as shown in Fig. 1*) and the control command (*changes and playlist of col. 6 lines 40-49*) to the display computer device (*art space controllers 603 of Fig. 6*);

transforming the display elements (*art images to be displayed as shown in Fig. 1*) from the file containing the display element (*as required for having an electronic copy of col. 4 lines 27-30*), which display elements are available in digital form (*as required for having an electronic copy of col. 4 lines 27-30*), as a result of the control command (*recall that the control command is an updated playlist with any changes from server to art space controllers of Figs. 6-7 and 4*) by the display computer device (*art space controllers 603 of Fig. 6 and col. 6 lines 14-17*) into signals in a graphic card format in order to display the display element on the display device and to transmit it to the

associated display device (*as required for display of an image as shown in Fig. 1 and col. 4 lines 9-27*);

said control command (*recall that the control command is the updated playlist from server to art space controllers of Figs. 6-7 and 4*) specifying the point in time (*col. 6 lines 42-45*) at which the display computer device (*art space controllers 603 of Fig. 6 and col. 6 lines 14-17*) transmits a signal and the display device to which the signal is to be transmitted (*col. 7 lines 27-38 referring to the art space controller looping through the playlist and displaying the images on the display devices*).

Muoio fails to disclose in their invention the use of a display computer device serving exclusively to generate an image signal from the digital display element or an average time it takes the viewer to travel between locations. However, in the background of the specification, Muoio discloses that at museums, a central computer systems controls the displaying of a play list on various display devices, and that the images can be stored at the central computer system (*col. 1 lines 50-64*). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention, to use a display computer device (*art space controllers 603 of Fig. 6*) exclusively assigned to generate an image signal from the digital display element stored in the server (*Fig. 7*) according to a playlist (*Fig. 4*) also stored in the server, when it is unnecessary to provide user input other than the administrator, such as in museums environments (*col. 1 lines 50-64*).

Muoio still fails to disclose a difference in time between the playing times of the playlists in the different rooms to be the average time it takes the viewer to travel between locations.

However, Takahashi discloses multiple display devices that display information with intervals between them (*Takahashi, Fig. 1, displays 2-51-5n at distances $d1-dn$ and transmission times shown in Fig. 3 and col. 5 lines 35-40*). Thus, it would also have been obvious to one of ordinary skill in the art at the time of the invention to modify Muoio's method to include a delay in between playing an image information when the viewer moves between different zones in order to obtain the benefit of continuous viewing of the information (*Takahashi, col. 5 lines 35-40 and col. 2 lines 10-23*). By doing such combination, Muoio in view of Takahashi disclose:

the chronological coordination of the display elements (*Muoio, art images to be displayed as shown in Fig. 1 per col. 4 lines 42-44, which correspond to the event IDs of Takahashi's Figs. 3-4*) being set with a difference in time between the playing time of sequences being equal to the average time it takes the viewer to travel between locations (*Takahashi's Figs. 3-4 and col. 5 where the difference in time between the playing time of for example - EVENT0 in playlist P0 and EVENT0 in playlist P1 - is $d1/v0$ or $e1/v0$ per col. 5 lines 13-34. Note that this time is the time it takes a person to walk the distance between locations at a speed $v0$. The examiner interpreted this time to be an "average time" because it is based on an "average velocity" per col. 4 lines 8-14*) so as to enable a viewer to view an essentially complete continuous sequenced presentation (*Takahashi, col. 5 lines 35-40*).

5. Regarding **claim 15**, Muoio further teaches said sequence plan to be a play list (Figs. 3-4) and in that a plurality of display elements (*Art Names of Fig. 3*) and control information (*col. 6 lines 42-45 length of time*) are compiled in said play list (*Fig. 3 and col. 4 lines 42-50*) and that said play list is transmitted to the control computer device (*col. 7 lines 28-36*).

6. Regarding **claim 16**, Muoio further teaches said playlist is analyzed by the control computer device (*art server controller 707 of Fig. 7 and co. 6 lines 58-63 referring to the server controller controlling play list changes*) with control commands (*recall that the control command is the updated playlist from server to art space controllers of Figs. 6-7 and 4*) being generated for the display of the display elements compiled in said play list (*as necessary for displaying the images per Fig. 6 and col. 7 lines 2-8*).

7. Regarding **claim 17**, Muoio further teaches the display computer device (*art space controllers 603 of Fig. 6*) and control computer device (*art server controller 707 of Fig. 7*) integrated into a network (*as shown in Fig. 6*).

8. Regarding **claim 18**, Muoio further teaches the same display elements are transmitted to a minimum of two display computer devices (*col. 5 lines 41-45*).

9. Regarding **claim 19**, Muoio further teaches the control command (*recall that the control command is the updated playlist from server to art space controllers of Figs. 6-7 and 4; note that this includes the image to be displayed*) to be transmitted close to the time of the desired display of the display elements to the display computer device (*col. 7 lines 2-13 where the next image is sent when the current image is being displayed*).

10. Regarding **claim 24**, Muoio further teaches the period of time between the beginning of the transmission of the control command (*recall that the control command is the updated playlist from server to art space controllers of Figs. 6-7 and 4; note that this includes the image to be displayed. Col. 7 lines 5-13 control command including next image*) and the transmission of the signal (*col. 7 lines 5-13 transmission of the current image*) is automatically determined (*60 sec per col. 7 lines 5-13*).

11. Regarding **claim 25**, Muoio further teaches that during the display of the display element on the display device (*col. 7 lines 5-13*), a control signal (*next image*) is transmitted to the control computer device (*per col. 7 lines 2-13*).

12. Regarding **claim 26**, Muoio further teaches that the point in time at which the display element is displayed on the display device (*col. 7 lines 5-13*) is controlled by the control computer device as a function of a control signal (*col. 9 lines 52-62 referring to the looping of the images at specified intervals*).

13. Regarding **claim 28**, Muoio further teaches that during generation of a signal (*col. 9 lines 25-39 where the generation of a signal is a change to the playlist*), a control signal is transmitted to the control computer device (*per col. 9 lines 25-39*).

14. **Claims 20-23** are rejected under 35 U.S.C. 103(a) as being unpatentable over Muoio et al. in US 6,670,934 and Takahashi in US 6,384,801 as applied above, in further view of Amo et al. in US 2002/0007987 (hereinafter Amo).

15. Regarding **claim 20**, Muoio in view of Takahashi fail to disclose two control commands, one for loading onto the display computer device and the other for transmitting the signal to the display device. However, Amo discloses a method for broadcasting in multiple displays (*Amo, para. 8*) where a first control command (*Amo para. 35, command required to transmit info from servers to displays*) causes a file containing a display element (*Amo, images of para. 39*) to be loaded on the display computer device (*Amo, mass storage 314 of Fig. 3 per para. 37 and Fig. 5*) and that a second control command (*Amo, schedule per para. 37 lines 1-3*) causes the signal to be transmitted by the display computer device to the display device (*Amo, Fig. 5 and para. 37*) and causes the display elements (*Amo, images of para. 39*) to be displayed on the display device (*Amo, para. 37*). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention, to modify the method of Muoio in view of Takahashi, to send a first control command to load the image onto the display computer device and send a second control command to transmit the signal to the

display device (*as taught by Amo*) because doing so would result in reaching a display unit in any location from a central position in a consistent and timely manner (*Amo, para. 35*).

16. Regarding **claim 21**, Muoio in view of Takahashi and Amo teach said first control command (*Amo para. 35, command required to transmit info from servers to displays*) and said second control command (*Amo, schedule per para. 37 lines 1-3*) transmitted so as to be staggered by a period of time (*Amo, para. 35 teaches that the building server relies the information to the display. Para. 36 discloses that once the relevant info has been received it is processed by the display and then forwarded to the screen; thus teaching the second control command for display on the screen occurring only after processing of the information received by the server, consequently the first and second control command are staggered. Furthermore, para. 37 teaches the computer receiving a schedule, and displaying the information based on what the next information has to be displayed*) causing the signal to be transmitted and the display element to be displayed on the display device after a predetermined period of time (*Amo, schedule time of para. 37 for display of info in screen*) has elapsed after the transmission of the second control command (*as per schedule or playlist*).

17. Regarding **claim 22**, Muoio in view of Takahashi and Amo teach said first control command (*Amo, para. 35, command required to transmit info from servers to displays*) and said second control command (*Amo, schedule per para. 37 lines 1-3*) transmitted

simultaneously (*Amo, para. 33 where the schedule is stored in the server and not in the computer, and is transmitted real time to the display*) causing the signal to be transmitted and the display element (*Amo, images of para. 39 which is equivalent to Muoio's art images*) to be displayed on the display device after a predetermined period of time has elapsed after the transmission of the second control command (*as per schedule or playlist*).

18. Regarding **claim 23**, Muoio in view of Takahashi and Amo teach a plurality of display computer devices (*Amo, Fig. 2, elements 212 which corresponds to Muoio's space controllers 603 of Fig. 6*) synchronized to a reference point in time (*Amo, as required for synchronization of the city server with each building per para. 31 lines 12-27*) and that the second control command (*Amo, schedule per para. 37 lines 1-3*) causes the signal to be transmitted at a predetermined time (*as per schedule or playlist*).

Response to Arguments

19. Applicant's arguments with respect to claim 14 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

20. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **LILIANA CERULLO** whose telephone number is (571)270-5882. The examiner can normally be reached on **Monday to Thursday 9AM-4PM**.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Amr Awad** can be reached on **571-272-7764**. The fax phone number for the organization where this application or proceeding is assigned is **571-273-8300**.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/L. C./
Examiner, Art Unit 2629

/Amr Awad/
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